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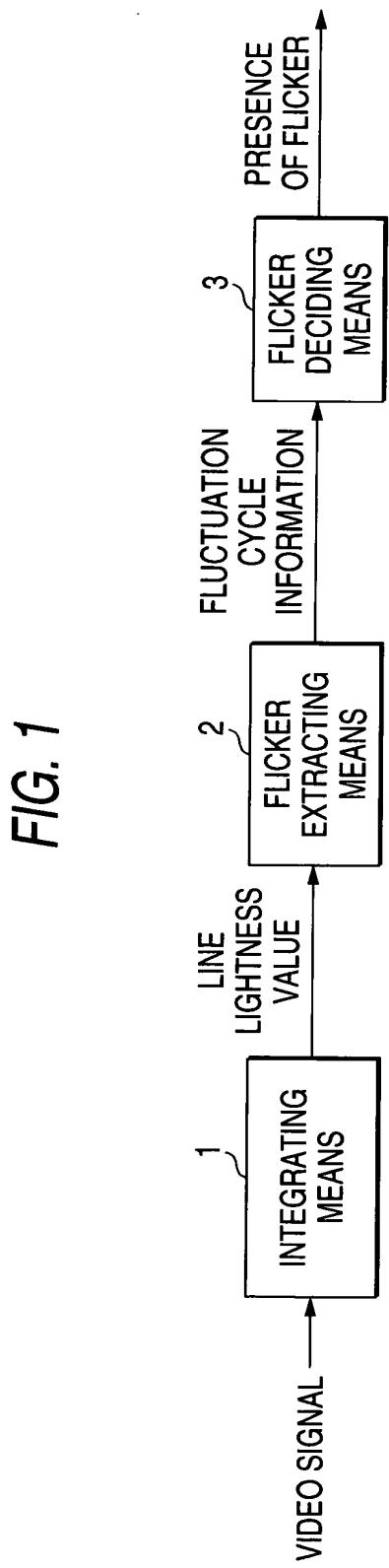


FIG. 2

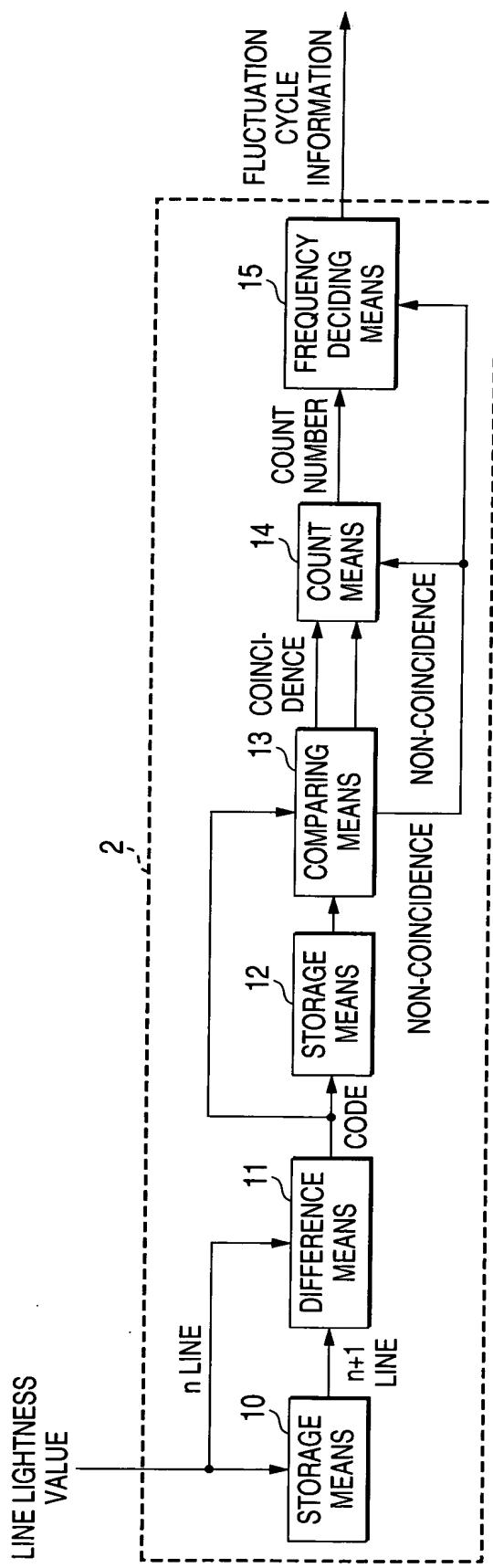


FIG. 3

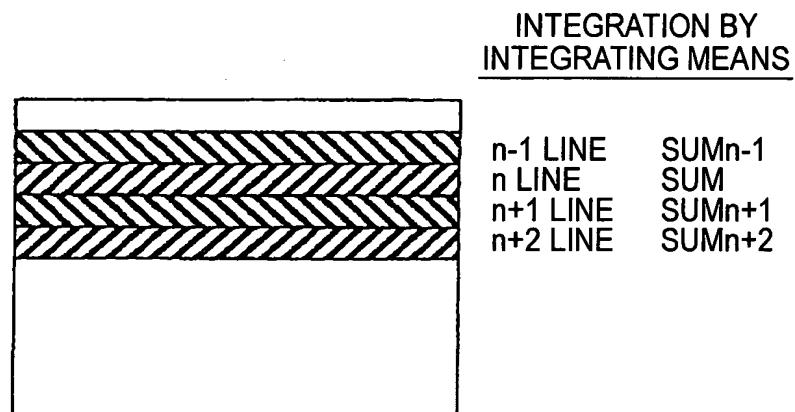


FIG. 4

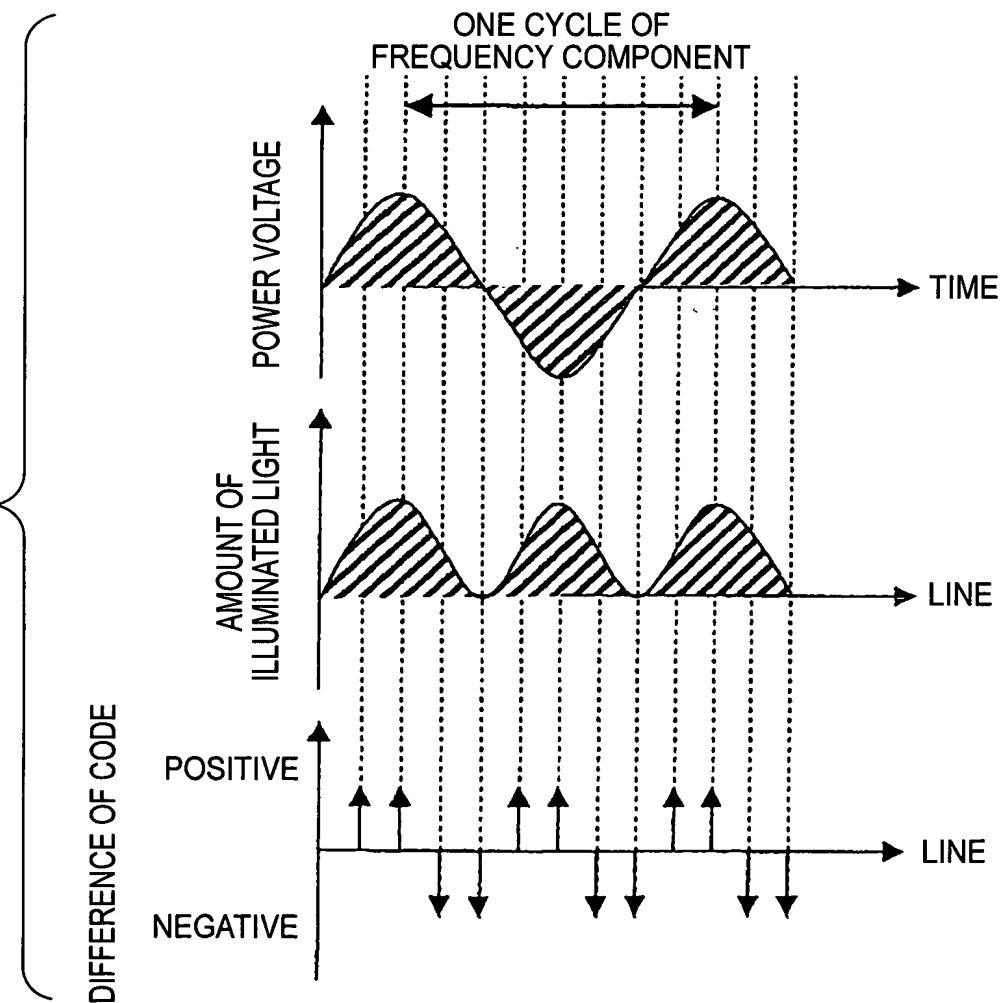
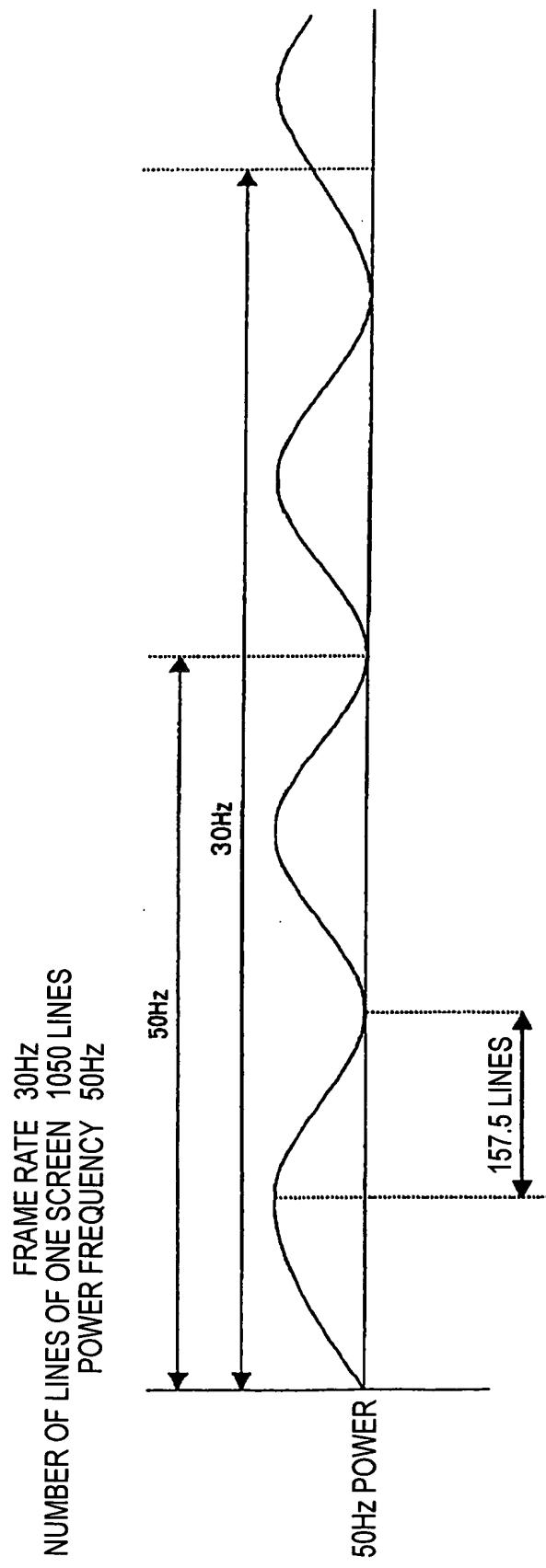


FIG. 5



$$\begin{aligned}
 \text{HORIZONTAL SYNCHRONIZING FREQUENCY} &= (\text{FRAME RATE}) \times (\text{NUMBER OF LINES}) \\
 &= (30\text{Hz}) \times 1050 \\
 &= 31500\text{Hz}
 \end{aligned}$$

$$\begin{aligned}
 \text{FLICKER CYCLE} &= \frac{\text{NUMBER OF CODE CHANGE POINTS FOR ONE CYCLE} \times (\text{POWER FREQUENCY})}{(\text{31500Hz})} \\
 &= \frac{4 \times (50\text{Hz})}{(31500\text{Hz})} \\
 &= 157.5 \text{ LINES}
 \end{aligned}$$

HORIZONTAL SYNCHRONIZING FREQUENCY

FIG. 6

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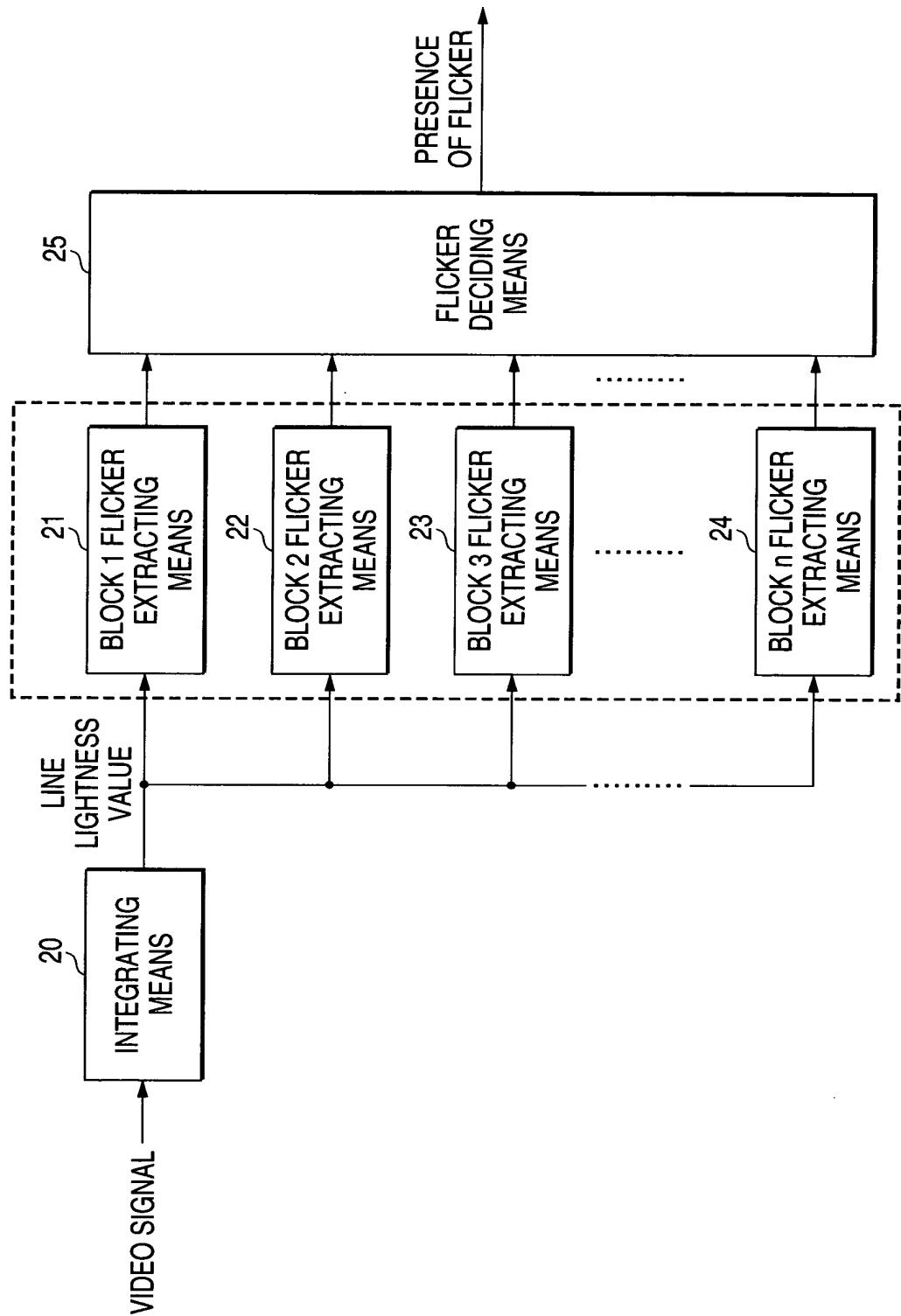


FIG. 7

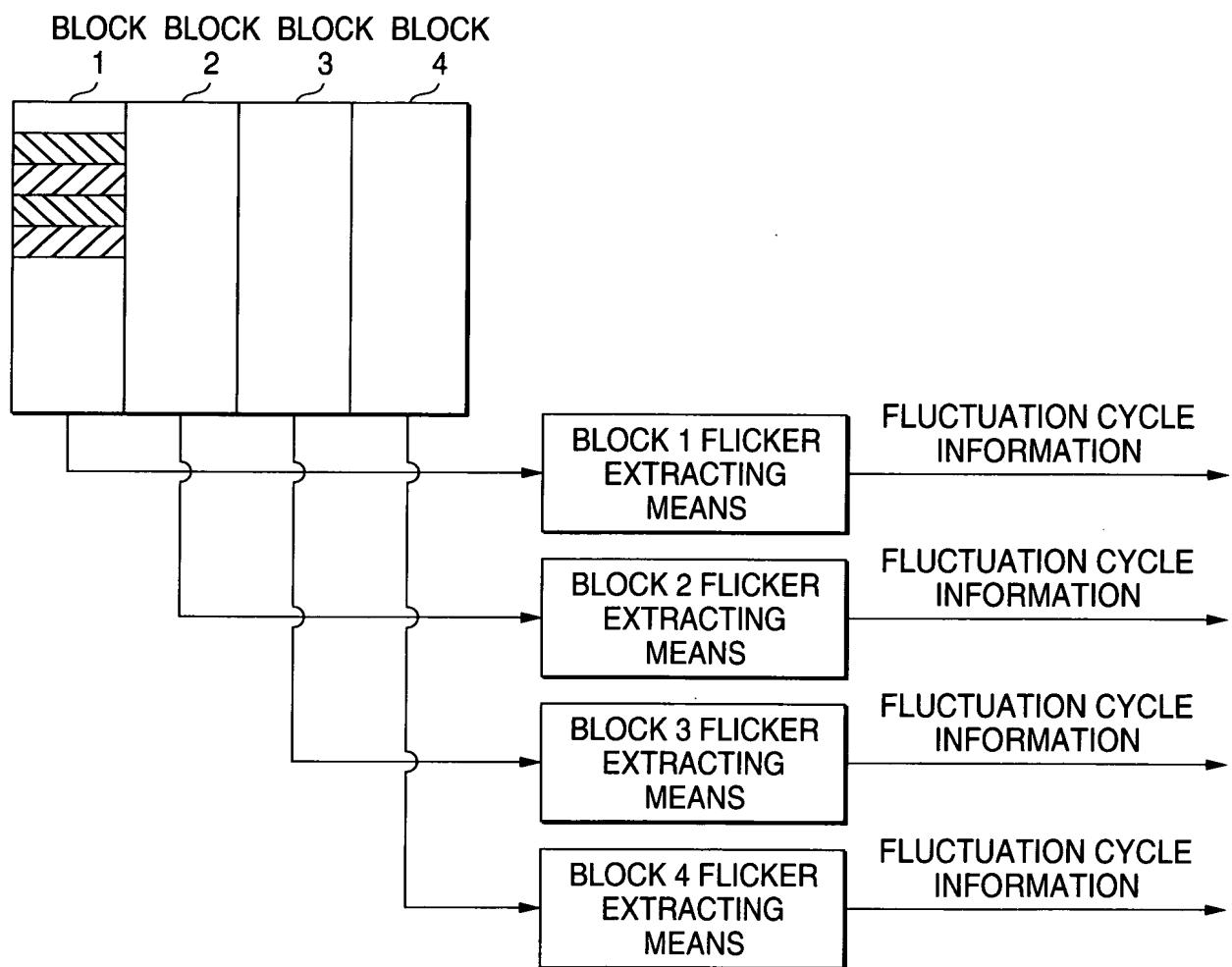


FIG. 8A

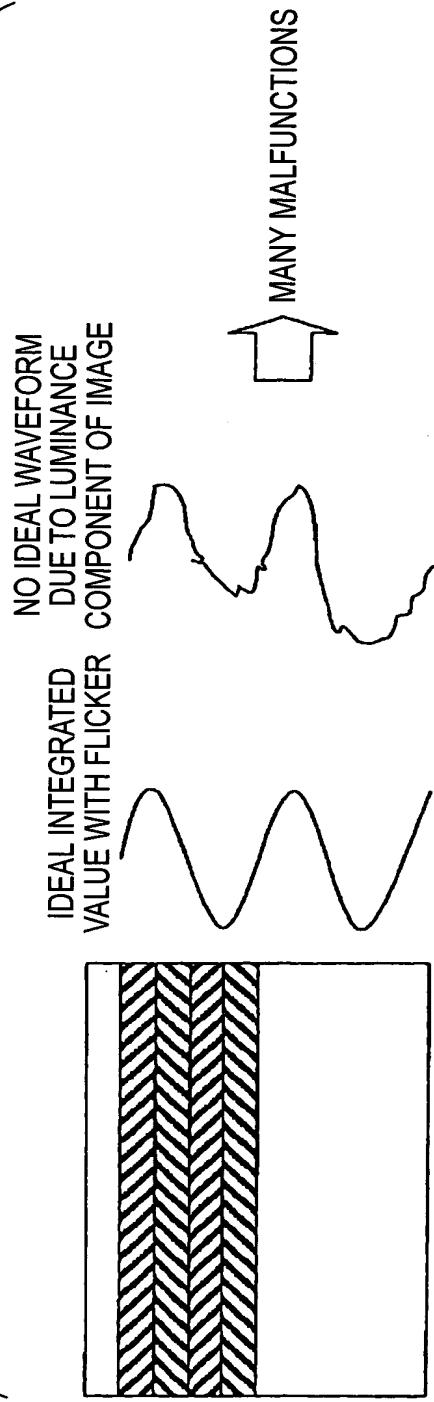


FIG. 8B

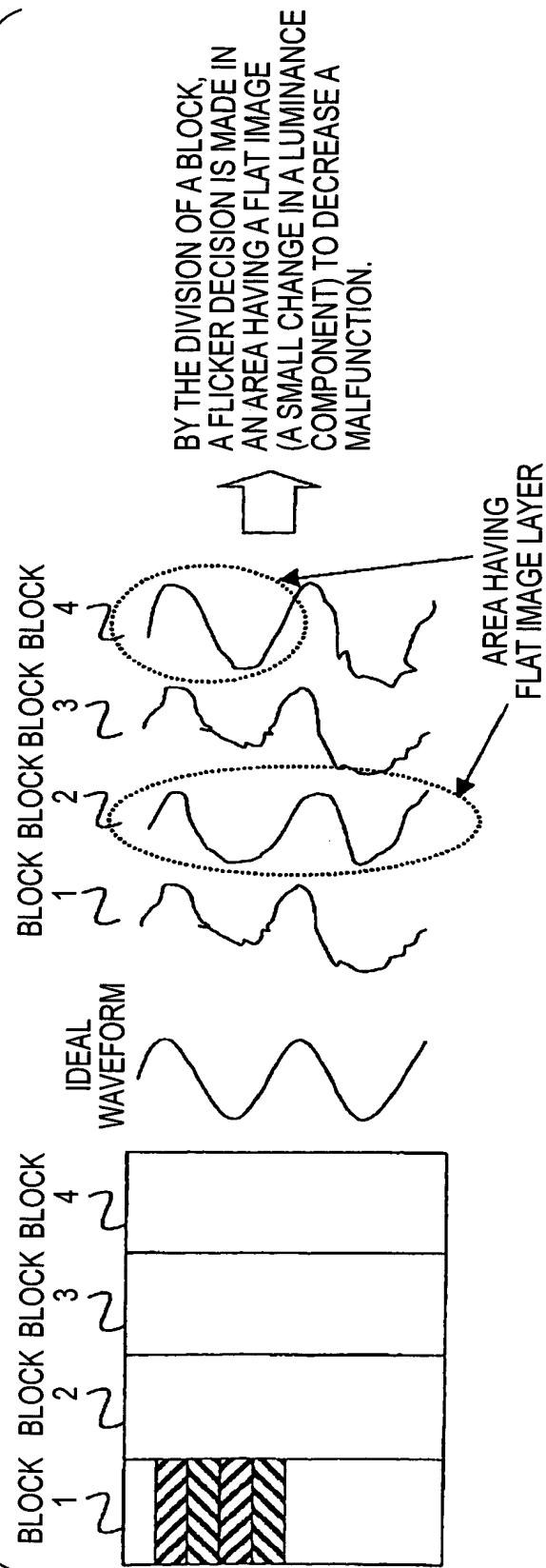


FIG. 9

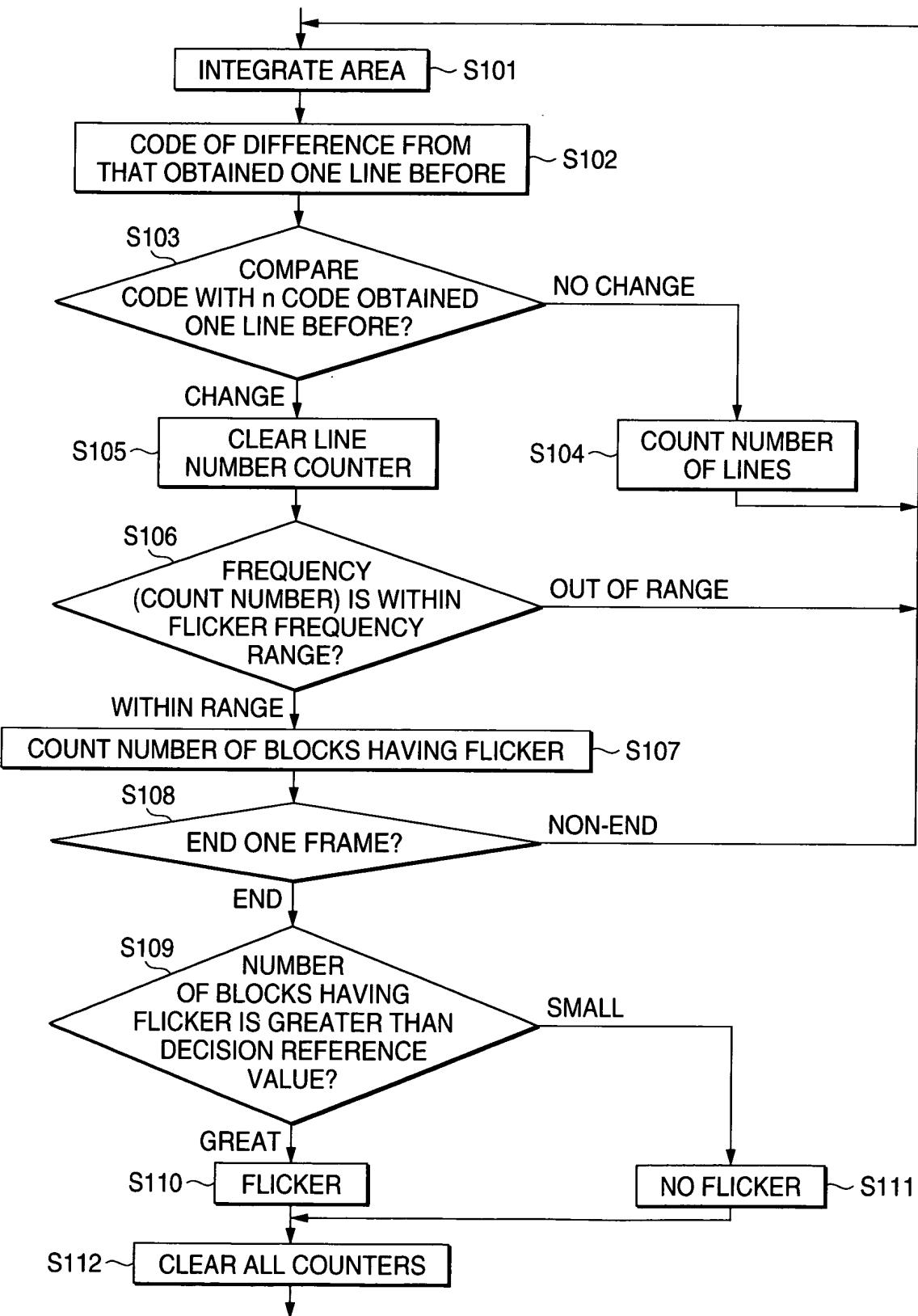


FIG. 10

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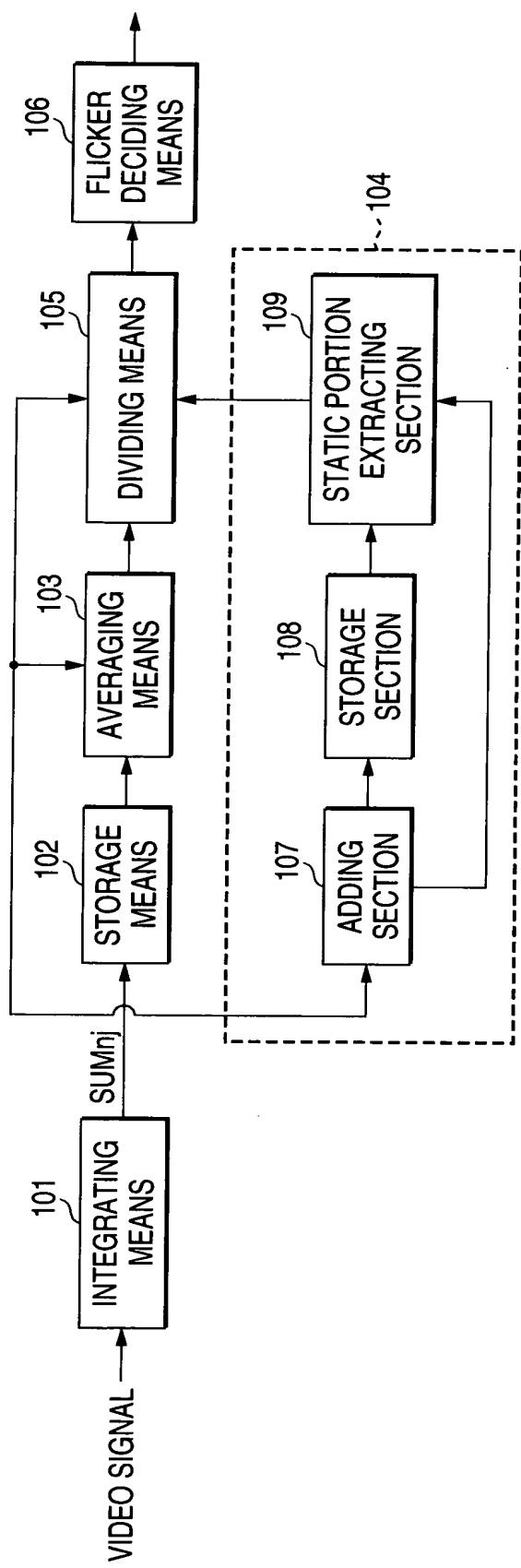
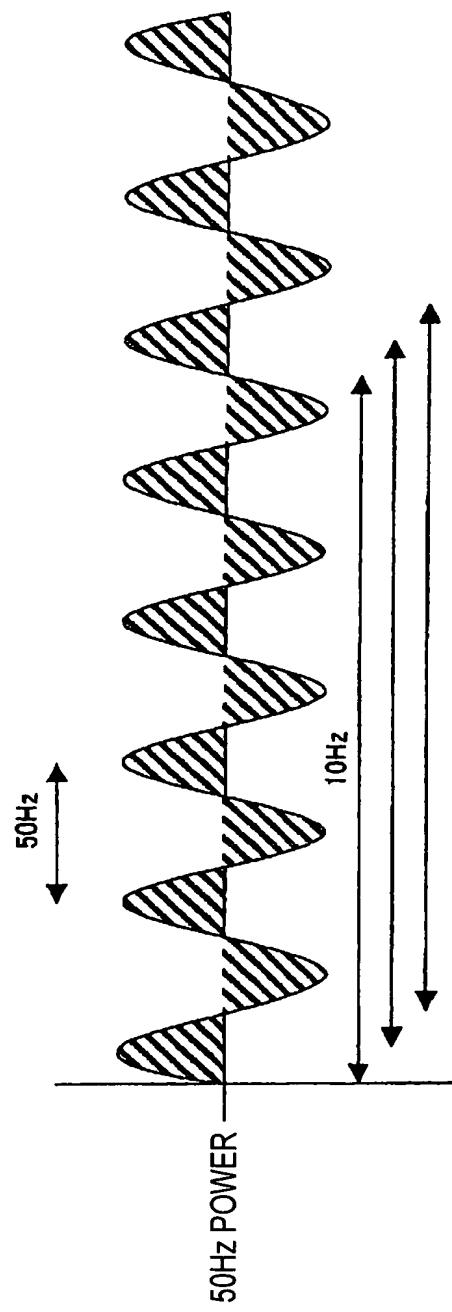
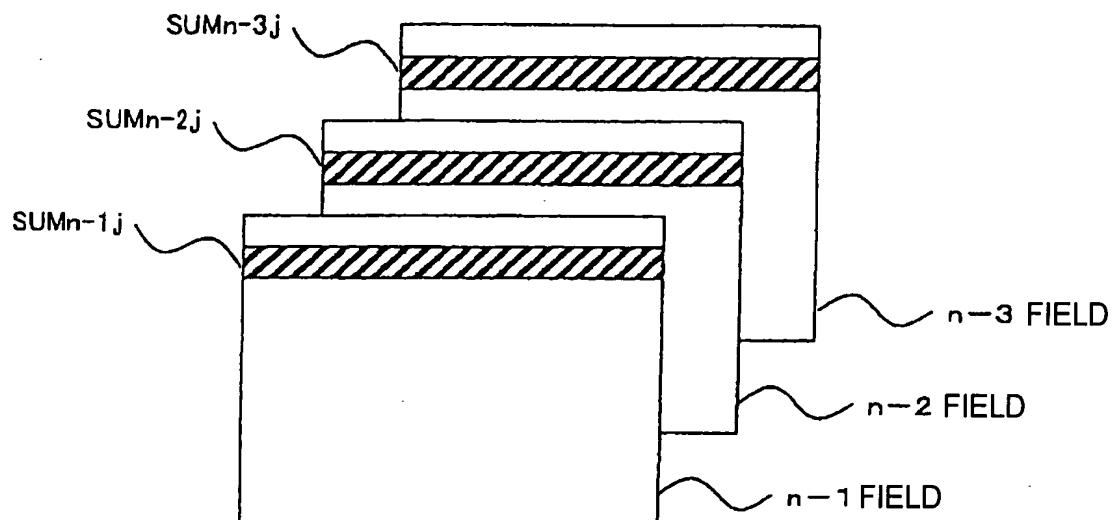


FIG. 11



IN THE CASE IN WHICH A FRAME RATE IS 30Hz AT A POWER OF 50Hz, AN INTEGRATION OF THREE FRAMES (10Hz) IS EQUIVALENT IRRESPECTIVE OF THE SAMPLING IN ANY TIMING. THEREFORE, IT IS POSSIBLE TO REMOVE A FLICKER COMPONENT BY THE INTEGRATION OF THREE FIELDS.

FIG. 12



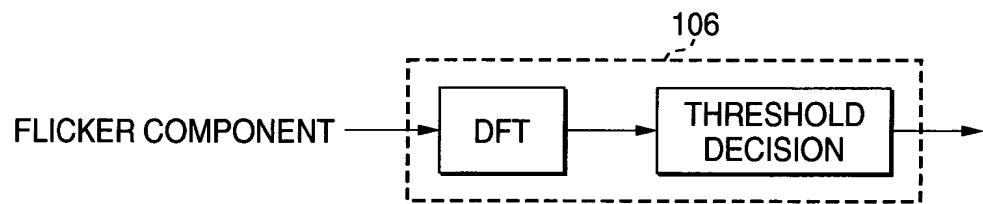
A SIGNAL OBTAINED BY AVERAGING A PREDETERMINED AREA CORRESPONDING TO A PLURALITY OF FRAMES (THREE FRAMES IN A CONVENTIONAL EXAMPLE) HAS NO FLICKER COMPONENT

$$AVEnj = (SUM_{n-1j} + SUM_{n-2j} + SUM_{n-3j}) / 3$$

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FIG. 13

$$\text{FLICKER COMPONENT} = \frac{\sum M_{n-1j}}{\sum V_{Enj}}$$



DFT (DISCRETE FOURIER TRANSFORM) $X(\omega) = \frac{1}{2\pi} \int x(t) e^{-i\omega t} dt$

OR

DFT CONVERSION TABLE